

NOV 08 2007

Application No. 09/929,703

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A method ~~Method~~ for transmitting a plurality of information symbols between a first transceiver and a second transceiver by modulating a carrier signal, wherein

a different modulation index is assigned to each one of the information symbols, the information symbols conveying data, and the modulation indices identifying a type of the conveyed data based on an amplitude of the amplitude modulation index,

at least one characteristic physical variable of the carrier signal is modulated in accordance with the different modulation indices assigned respectively to the information symbols that are modulated onto the carrier signal to produce a modulated signal, and

the modulated signal is transmitted from the first transceiver to the second transceiver, and the second transceiver evaluates the modulated signal to obtain the conveyed data.

2. (Currently amended) The method ~~Method~~ according to claim 1, wherein, alongside the frequency and phase, the amplitude (A) is modulated as the characteristic physical variable of the carrier signal.

Application No. 09/929,703

3. (Currently amended) The method ~~Method~~ according to claim 1, wherein the nth information symbol is transmitted with a time-shift from the (n+1)th information symbol.
4. (cancelled)
5. (Currently amended) The method ~~Method~~ according to claim 1, comprising simultaneously transmitting a selected one (n) of the information symbols and a subsequent one (n+x) of the information symbols that follows the selected one of the information symbols.
6. (cancelled)
7. (Currently amended) The method ~~Method~~ according to claim 1, wherein not only the modulation indices but also respective period lengths of modulation periods differ respectively from one another to define additional information symbols.
8. (cancelled)
9. (cancelled)
10. (Currently amended) The method ~~Method~~ according to claim 1, wherein the first transceiver controls the second transceiver by at least one control signal, being a clock signal assigned to an information symbol.

Application No. 09/929,703

11. (cancelled)

12. (cancelled)

13. (Currently amended) A method ~~Method~~ for transmitting a plurality of information symbols between a first transceiver and a second transceiver by modulating a carrier signal, wherein

a different modulation index is assigned to each one of the information symbols,

at least one characteristic physical variable of the carrier signal is amplitude modulated in accordance with the different modulation indices assigned respectively to the information symbols that are modulated onto the carrier signal, and

at least one of the information symbols includes data for a control signal for setting a data rate for a data transmission of the modulated carrier signal by the first transceiver, and the modulation index including the data of the control signal is smaller than the modulation index of a data signal formed by others of said information symbols.

14. (Currently amended) The method ~~Method~~ according to claim 10, wherein the second transceiver has no electronic circuit for clock generation and is a passive transponder that uses the clock signal for local clocking.

15. (cancelled)

Application No. 09/929,703

16. (Previously presented) A method of producing and transmitting a modulated information signal from a first device to a second device, comprising the steps:

- a) defining plural information symbols;
- b) assigning plural different modulation indices respectively individually to said information symbols, wherein said modulation indices differ from one another;
- c) representing information items, which are to be transmitted, with said information symbols, wherein said modulation indices respectively assigned to said information symbols identify said information items based on an amplitude of each of said modulation indices;
- d) modulating said information symbols onto a carrier signal, comprising modulating a characteristic physical parameter of said carrier signal in accordance with said different modulation indices respectively assigned to said information symbols; to produce a modulated information signal;
- e) transmitting said modulated information signal from said first device to said second device; and
- f) in said second device, evaluating said modulated information signal to obtain said information items and additional information.

17. (Previously presented) The method according to claim 16, wherein said information symbols include first and second information symbols that differ from one another, and said modulation indices include first and second modulation indices that differ from one another and that are respectively assigned to said first and second information symbols.

Application No. 09/929,703

18. (Previously presented) The method according to claim 17, wherein said information symbols further include a third information symbol that differs from said first and second information symbols, and said modulation indices further include a third modulation index that differs from said first and second modulation indices and that is assigned to said third information symbol.

19. (Previously presented) The method according to claim 18, wherein said information symbols further include a fourth information symbol that differs from said first, second and third information symbols, and said modulation indices further include a fourth modulation index that differs from said first, second and third modulation indices and that is assigned to said fourth information symbol.

20. (Previously presented) The method according to claim 17, wherein said first and second information symbols respectively have different durations relative to one another.

21. (Previously presented) The method according to claim 17, wherein said first and second information symbols respectively have different numbers and/or different patterns of modulation pulses relative to one another.

22. (Previously presented) The method according to claim 16, wherein said different modulation indices respectively have predefined modulation index values that differ

Application No. 09/929,703

from one another by predefined differences that can be detected and differentiated between by said second device.

23. (Previously presented) The method according to claim 16, wherein said information symbols respectively having said different modulation indices assigned thereto respectively represent different types of said information items that are to be transmitted, and said additional information represented by said different modulation indices respectively identifies said different types of said information items.

24. (Previously presented) The method according to claim 16, wherein said characteristic physical parameter of said carrier signal being modulated in said step d) comprises a frequency or a phase of said carrier signal.

25. (Previously presented) The method according to claim 16, wherein said characteristic physical parameter of said carrier signal being modulated in said step d) comprises an amplitude of said carrier signal.

26. (Previously presented) The method according to claim 25, wherein said different modulation indices give rise to respective different maximum amplitudes and a consistent amplitude modulation swing of said respective information symbols modulated in said modulated information signal.

Application No. 09/929,703

27. (Previously presented) The method according to claim 16, wherein said information symbols are modulated in succession respectively in successive time intervals one after another in said modulated information signal.

28. (Previously presented) The method according to claim 16, further comprising defining an additional information symbol and modulating said additional information symbol onto said carrier wave simultaneously with at least a selected one of said information symbols defined in said step a) by superimposing said additional information symbol thereon in said modulated information signal.

29. (Previously presented) The method according to claim 16, wherein said step d) comprises modulating said information symbols successively in respective successive time intervals onto said carrier signal, with one or more of said successive time intervals respectively defining respective successive signal periods bounded between field gaps in said modulated information signal, and

further comprising defining further information symbols that are respectively assigned respective ones of said signal periods having respective different time durations and that represent further information in said signal periods having said different time durations.

30. (Previously presented) The method according to claim 16, wherein at least one of said information symbols represents a control signal, and further comprising

Application No. 09/929,703

receiving said control signal in said modulated information signal in said second device and controlling said second device responsively to said control signal.

31. (Previously presented) The method according to claim 30, wherein said second device is a passive transponder that does not include a local clocking signal generator circuit, wherein said control signal is a clock signal, and said controlling of said second device comprises controlling a local clocking of said second device in response to said clock signal.

32. (Currently amended) The method ~~Method~~ according to claim 1, wherein the additional information identifies respective data types of the respective data conveyed by the information symbols.

33. (New) A method of transmitting a plurality of information symbols between a first transceiver and a second transceiver by modulating a carrier signal, the method comprising:

assigning an amplitude modulation index to a first information symbol of the plurality of information symbols, wherein the first information symbol conveys data, and wherein the amplitude modulation index identifies a type of the conveyed data of the first information symbol based on an amplitude of the amplitude modulation index;

assigning a different amplitude modulation index and a different period length of a modulation period to a second information symbol of the plurality of information symbols, wherein the second information symbol conveys data, and wherein the different



Application No. 09/929,703

amplitude modulation index and the different period length of the modulation period identifies a type of the conveyed data of the second information symbol based on an amplitude of the different amplitude modulation index,

modulating at least one characteristic physical variable of the carrier signal in accordance with the different amplitude modulation index assigned respectively to each of the plurality of information symbols that are modulated onto the carrier signal to produce a modulated signal,

transmitting the modulated signal from the first transceiver to the second transceiver; and

evaluating the modulated signal at the second transceiver to obtain the conveyed data.